

literature, Anti-D was selected over IVIG as the preferred agent at Staten Island University Hospital. The objectives of this study were to investigate how much IVIG was spared after implementation of this decision and determine the cost savings realized when Anti-D is used in place of IVIG. **METHODS:** Literature supporting the utilization of Anti-D in treatment of ITP was presented by each of the key clinical faculty. The oncology pharmacist screened and verified all IVIG orders for ITP patients. Substitution with Anti-D was made for all Rh+ and non-splenectomized patients. The quantity of IVIG spared was calculated by subtracting the amount dispensed before and after implementation of the program. Savings realized were calculated by determining the cost of a treatment course with IVIG and with Anti-D for a 80 kg patient. **RESULTS:** A total of 904 and 130 g of IVIG were administered during the first and the second half of 2006, respectively. Similarly, 220,000 and 376,000 units of Anti-D were used during the same time periods. A treatment course with IVIG (at 1 g/kg/day for two days) costs \$8960 whereas a treatment course of Anti-D costs \$4200 (at 75 ig/kg). Since the treatment of a 80 kg patient would require 160 g of IVIG, the 774 g spared represent the amount necessary to treat 5 patients with IVIG. The sparing of 774 g of IVIG therefore helped save \$23,800. Also, 3 other courses were done with Anti-D instead of IVIG yielding \$14,280 in additional savings. **CONCLUSION:** In 2006, the implementation of a therapeutic substitution program at Staten Island University Hospital making Anti-D the preferred agent over IVIG in the treatment of ITP helped spare 774 grams of IVIG and saved \$38,080.

PSY26

THE DIRECT MEDICAL COSTS ASSOCIATED WITH SUSPECTED (CONFIRMED AND NEGATIVE) HEPARIN-INDUCED THROMBOCYTOPENIA

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OBJECTIVE: Heparin-induced thrombocytopenia (HIT) is an important adverse reaction associated with heparin utilization. No previous studies have assessed the cost of suspected HIT or examined HIT from a Canadian perspective. Therefore, the objective of our study was to quantify the direct medical costs associated with suspected and confirmed HIT from a Canadian hospital perspective. **METHODS:** A cost of illness analysis was conducted on a population of consecutive patients with suspected HIT during 2005. Suspected HIT was defined by the performance of a HIT enzyme-linked immunosorbent assay (ELISA). Confirmed HIT was defined by one the following: 1) positive serotonin release assay (SRA), 2) positive HIT ELISA plus high clinical probability for HIT, or 3) strongly positive HIT ELISA (optical density ≥ 1.0). Negative HIT was defined as a negative HIT ELISA or SRA result. Resource utilization variables included: 1) HIT-safe anticoagulant use, 2) laboratory tests, 3) diagnostic and surgical procedures, and 4) length of stay (LOS) attributed to HIT. The average cost (2007 CAN\$) per case of confirmed HIT, confirmed HIT with thrombosis (HITT), and negative HIT was calculated. Cost data was obtained from hospital and provincial sources. **RESULTS:** There were 110 suspected HIT cases (56 males: 54 females) in 2005. Two patients were excluded because their HIT status could not be determined. Average LOS was 36 ± 42 (range 3–244) days. There were 88 negative HIT cases, 8 with confirmed HIT, and 12 with confirmed HITT. Patients with confirmed HITT incurred substantially greater average costs (\$25,696, range \$357–\$145,217) than those with confirmed

HIT (\$3846, range \$38–\$14,258). The average cost of a negative HIT case was \$115 (range \$38–\$4119). **CONCLUSION:** This is the first study to identify the costs associated with confirmed HIT, confirmed HITT, and negative HIT. Suspected HIT increases the costs of hospital care.

PSY27

BURDEN OF OBESITY: 10-YEAR REVIEW OF PUBLISHED LITERATURE ON DIRECT AND INDIRECT COSTS IN NINE COUNTRIES

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OBJECTIVE: To examine literature published during the past ten years describing the impact of obesity and obesity-related disease on direct and indirect costs in Australia, Canada, France, Germany, Italy, Spain, Sweden, the UK, and the US. **METHODS:** A review of the medical literature published from 1997 to 2007 was conducted, including MEDLINE, EMBASE, Current Contents Connect, and International Pharmaceutical Abstracts databases; ISPOR abstracts; and data published by relevant governmental agencies. **RESULTS:** A substantial portion of direct costs related to obesity derive from treating comorbidities associated with the condition (e.g., type 2 diabetes, cardiovascular disease). Indirect costs, including those associated with reduced work productivity, increased absenteeism, and premature death, are significant, with the majority arising from comorbid conditions. Direct costs were greater for obese patients than for normal-weight patients; morbid obesity was associated with dramatic cost increases. Estimates of direct costs as a percentage of national health care expenditures were 5.7% for the US, and ranged from 2% to 2.6% for Australia, Canada, Sweden, and the UK. No estimates of indirect costs as a percentage of national health care costs were identified. No studies involving direct or indirect cost data collected since 1995 were identified for France, Italy, or Spain. **CONCLUSION:** Obesity has a substantial economic impact because of its high prevalence, association with multiple chronic diseases, and increased levels of disability and absenteeism. The lack of recent direct or indirect cost estimates in several countries highlights the need for further work to describe the global economic burden of obesity.

PSY28

A SYSTEMATIC REVIEW OF LOW BACK PAIN COST OF ILLNESS STUDIES IN THE UNITED STATES AND INTERNATIONALLY

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OBJECTIVE: Conduct a systematic review of low back pain cost of illness studies. **METHODS:** Medline was searched to uncover studies about the direct or indirect costs of low back pain published in English from 1997 to 2007. Data extracted for each eligible study included study design, population, definition of low back pain, methodology for estimating costs, year of data, and estimates of direct, indirect, or total costs. **RESULTS:** The search yielded 147 studies; 27 were deemed relevant. The studies reported on data from Australia, Belgium, Japan, Korea, The Netherlands, Sweden, the UK, and the US. Nine studies estimated direct costs only, 9 indirect costs only, and 9 both direct and indirect costs, from a societal (n = 18) or private insurer (n = 9) perspective. Methodology used to derive both direct and indirect cost estimates differed markedly among the studies. Among